Number 15 July 2012

Flightfax®

Online Report of Army Aircraft Mishaps

"In flying, I have learned that carelessness and overconfidence are usually far more dangerous than deliberately accepted risks." — Wilbur Wright

This month's Flightfax is somewhat thinner than some previous months' editions. This isn't a result of lack of desire to put together Flightfax, nor is it a result of the USACR/SC Aviation Directorate staff's "beach" time. It is a direct reflection of your amazing efforts during the third quarter in reversing the trends of the first two quarters of the fiscal year. With only six Selected Aircraft Mishap Briefs for this month, the positive downward trend in reportable mishaps continues, although we can – and will – do better.

It is encouraging to see your efforts in the last month in utilizing the three-step mission approval process and providing effective "over the shoulder" support to your crews. In accomplishing complex, dangerous missions, Aviation Leaders are required to deliberately accept risks. However, as the opening quote reminds us, we cannot accept carelessness and overconfidence of our crews as they are executing the mission.

With this in mind, last month's Flightfax spotlighted the importance of pilot in command training, selection and assignment to missions, and the significant difference that dedicated PCs bring to successful and safe mission execution. This month's Blast from the Past, "No Place for Shyness," from October 1981, reminds us of the entire crew's responsibilities in safe mission execution. From pilots, to crew chief and flight engineers, to standardization officers, safety officers, platoon leaders, and commanders, when "I knew something like this was going to happen" was said, it is often those who speak up and make sure they have gotten the message across who can change that statement to "we prevented that from happening."

We know that we can reduce risk adhering to the three-step mission approval process. This allows us to be more informed before accepting risk, reducing the likelihood of aircrews being careless, overconfident, or complacent during mission execution. By continuing this positive pattern through the 4th quarter of this fiscal year, we can continue to reduce the downward trend from the first two quarters.

Until next month, fly safe!

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Checklists Are Not an Option

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Utilization and adherence to standardized procedures contained in aircrew and maintenance checklists are part of the very foundation of the safety and standardization program for all crewmembers operating Army aircraft. Use of Department of the Army-approved checklists is paramount in reducing errors caused by lack of experience, forgetfulness and chaos. Without a checklist, all crewmembers are susceptible to errors despite their number of hours flown or years of aviation experience.

Prior to WWII, aircraft operator and crewmember checklists were nonexistent. A handful of checklists were created by individuals and used by exception. It was not until the Boeing Aircraft Company showcasing their Model 299, later to become the B-17 Flying Fortress, crashed on takeoff with Army Air Corp pilots at the controls. The cause of the mishap was due to the elevator control locks not being removed prior to flight (human error). Fielding of the first B-17's required the creation of an aircraft checklist due to the complexity of the aircraft and the amount of memorization required by the pilots. Today, Army Regulations 95-1 and 95-23 mandate the use of a Department of the Army-approved operator and crewmember checklist for manned and unmanned aircraft.

Recent deployment trends have resulted in units or individuals modifying or disregarding the use of the approved DA checklist. Units exposed to the "Fog of War" and constant combat missions such as; MEDEVAC, CAS, QRF and ISR are the most susceptible to its members modifying existing checklist procedures in order to accommodate the mission. In one example, a unit disregarded the checklist run-up procedures in order to save minutes while responding to a Troops In Contact (TIC) mission. Bypassing the checklist procedures resulted in the aircraft's navigation system performing in a degraded mode and the pilots flying without an attitude source and an inaccurate navigation solution. Although they may have shaved minutes off their response time, they elevated the risk of becoming spatially disoriented and flying to the wrong engagement area in an aircraft without accurate navigation, heading and attitude references.

During Operation Iraqi Freedom, there were numerous incidents when UAS units lacked checklist discipline. In one particular case, mission preflight checks were conducted from memory and completed in 7 minutes versus the normal 30 to 45

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minutes, and entire sections of the checklist were skipped by both the operator in the shelter and the crew chief. Consequently, this UAV experienced an engine failure as a result of inadequate engine oil, and the other UAV launched with the external power cable connected to the aircraft.

While airborne, AR 95-1 permits crewmembers to accomplish checklist items when time does not permit the use of the checklist or when its use might cause a safety hazard. Recognizing workload requirements during emergencies, critical procedural items are underlined and expected to be performed from memory. These procedures are trained through repetition in order to reduce errors when a checklist is not used. The regulation does not allow for the checklist to be modified, or disregarded at the discretion of the crewmember.

An example of an unauthorized modification to a checklist was during a DES assessment flight where it was revealed that a unit routinely deviated from the checklist by pulling the circuit breaker for the windshield wipers in a UH-72 aircraft. Their rationalization was that inexperienced PIs were inadvertently engaging the windshield wiper while selecting the landing light, causing the windshield to be excessively scratched. Unrecognized by the unit, the risk level to the crew had been elevated since the wiper system was not immediately available to the crew in the event of an unexpected rain or snow shower. The thought of pushing in the circuit breaker might be overlooked and the pilot unable to view obstacles.

Although the reasoning in all the examples given sound somewhat justified, it opens the door to unit members subscribing to the “good idea club” and devising procedures that are not standardized and, most importantly, against Army regulations. There is an established process for all Army publications to be changed. The DA Form 2028, Recommended Changes to Publications and Blank Forms is the Army’s method of correcting errors or submitting changes to Army operator’s manuals and checklists and the instructions are posted in the front of every operator’s manual and checklist.

Adherence to U.S. Army regulations for the use of aircrew and maintenance checklists is paramount to the U.S. Army safety and standardization programs. Operating today’s complex aircraft and systems require that operators comply with standardized and approved procedures. Experienced crewmembers acknowledge that crewmembers are not immune to forgetting critical flight items when a checklist is not followed. All U.S. Army Aviation professionals recognize the value of following standardized and approved procedures and compliance with Army regulations.

--CW5 Michael McKenny is the DES Chief of Standardization and may be contacted at (334) 255-1582, DSN 558.

Everybody Knew – Flightfax September 1997

As Army aviators, we've all heard it, and most of us have said it at one time or another: "I knew something like this was going to happen!" These words are almost always uttered after a breach of flight discipline results in an accident.

When an Army aviator routinely takes unnecessary risks, somebody in the unit knows about it. That was true in the following case, which happened several years ago. However, accidents from similar causes continue to this day.

The accident didn't just happen on the day the OH-58 crashed into a lake. It really began long before then. It had its roots in the kind of flying the PC had been doing for the past year – and maybe even longer. In the 12 months before the accident, four operational hazard reports (OHRs) had been filed against him in addition to at least two verbal reports about his flying.

So, a lot of people knew.

Other aviators knew

Several aviators had reported the PC for his "cowboy" style of flying. They called him a "hot dog," and some of them refused to fly with him. OHRs mentioned seeing him accelerate down a runway at 60 to 70 knots during takeoff from an airfield that was below VFR minimums. Two pilots reported him for placing his helicopter in an extremely nose-low attitude during takeoff. Another aviator – the pilot of the lead aircraft in a flight of five OH-58s – had to execute a go-around to avoid this PC's aircraft when it taxied onto the runway in front of him. The PC then brought his aircraft to a hover as the third aircraft in the flight terminated its approach, endangering the landing aircraft.

The crew chiefs knew

Some of the enlisted crewmembers in the unit enjoyed the "thrill" of flying with this PC. They liked his aggressive style of flying; they found other aviators boring by comparison.

The standardization officer, the safety officer, and the platoon leader knew

Not only were they aware of the OHRs and other reports about the PC's flying, they had heard rumors about still other incidents. They had discussed the problem among themselves, and after the second verbal OHR (the last of a total of six), they went to the acting unit commander and requested that the PC be grounded.

The unit commander knew

Although he knew about the OHRs, written and verbal, and rumors about the PC's flying habits, the commander apparently looked at each of the reports as a separate incident and never considered them as an indication of a pattern. When his staff recommended that the PC be grounded, the commander decided that verbal counseling was the better route to take, although he had grounded aviators in the past for one reason or another. He had flown with the PC several times, and each time it was a "by-the-book" flight.

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Blast From The Past continued from previous page

The accident

The mission was cross-country training. The aircraft took off around 0900, and the flight proceeded normally. After two stops for fuel and to eat lunch, the crew removed the doors from the OH-58 and again took off. The PC was at the controls from the left seat. As the aircraft neared a large lake, he brought the helicopter to within 5 feet of the water and began flying along the long axis of the lake at 90 to 100 knots. After about 3 minutes, the aircraft hit the water with explosive force and immediately sank.

History of flight

The copilot had been at the controls during the early stages of the mission, handling not only the flying but also the navigation and the radios. When he began falling behind the aircraft, the PC took over the controls and the radio, leaving the copilot to handle navigation.

When they took off after lunch, the PC was still at the controls and the copilot was navigating. The PC initially descended to about 30 feet AGL, although that was below the 400-foot restriction for the OH-58. The PC continued to allow the aircraft to descend as it approached the lake. He told the copilot to navigate a direct route back to the airfield and to handle the radio calls. The copilot was looking at his map when the aircraft hit the water.

The copilot managed to surface and grab hold of a piece of floating debris. Two boats reached the crash site, and the crew of one pulled the copilot from the water while the other began searching for the PC. It was several days later before Navy divers recovered the PC's body from the bottom of the lake. He was still strapped in his seat.

Why?

Why did this PC continue to fly the way he did even after he had been reported and counseled? Why did his friends delay in reporting his unsafe behavior? Why didn't the crew chiefs realize that a "thrill" could cost them their lives? Why didn't the unit commander see the reports on this aviator for what they were: not isolated incidents, but signs pointing almost inevitably to an accident?

Why didn't somebody stop this aviator before he killed himself? After the accident, he was described as "high risk." But he was also described as intelligent, bright and an aviator who loved to fly. While his fellow aviators recognized his technical proficiency in the cockpit, everybody knew he was headed for trouble. Acting on that knowledge might have saved his life.

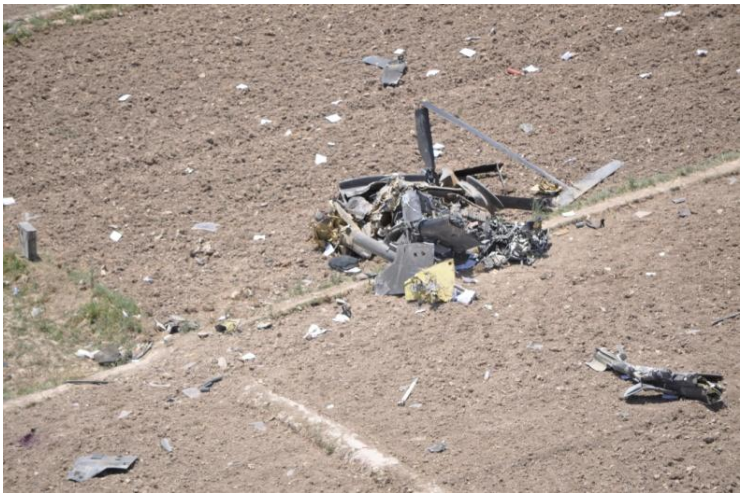
SPEAK UP! You may know about aircrews or aircrew members who may not have four to six OHRs filed on them but are beginning to become overconfident. Sometimes it's enough to just say something like, "Is that type of flying really necessary?" or, more pointedly, "I think you're getting too aggressive. No joke." As Barney Fife always said, "Nip it in the bud!"

Tough Caring

This accident graphically illustrates what can happen when there is a lack of "tough caring." Tough caring is people caring enough about their own professional performance and the performance of other members of their unit to police themselves and their fellow Soldiers. Tough caring is also Leaders caring enough to fix accountability, tighten supervision, set standards for performance and parameters for operations and require that all operations be conducted within those parameters.

Mishap Review: Route Reconnaissance

Approximately two and one-half minutes after receiving an Engine Chip Lower message, the OH-58D's engine failed. The aircraft entered autorotation and landed hard to an unimproved area causing significant aircraft damage and two major injuries.



History of flight

The accident aircraft was part of a Scout Weapons Team consisting of two OH-58D aircraft with a mission to conduct aerial route reconnaissance and security of named areas of interest (NAIs). The crews began their duty day at 0600L and received their mission brief at 0630. Team briefs were conducted at 0700 followed by individual crew briefs, pre-flight and run-ups. The weather forecast was for clear conditions and no restrictions to visibility. Winds were variable at 02 knots with a temp of 36 C.

The flight departed at 0900L with the accident aircraft in the lead position, flying approximately 200 feet AGL and the trail aircraft flying at 300 feet AGL. The first part of the mission proceeded as briefed. The flight returned an hour and a half later to re-fuel and departed at 1040 to resume the operation. At approximately 1047L, lead announced to trail that he had received a Chips Engine Lower message on his MFD. The decision was made to return to home base. At 1049L at 150 feet AGL and 90 knots airspeed, the engine failed. The crew executed an autorotation to a soft soiled plowed field surrounded by 6- to 8-inch berms. During the landing sequence, the aircraft struck a berm resulting in separation of the forward cross tubes and a left fuselage roll after contacting the ground. The aircraft was extensively damaged and the crew sustained serious injuries.

Crewmember experience

The PC, sitting in the right seat, had more than 3800 hours total flight time, 3600 in the OH-58D with 975 as an SP/IP. The PI had over 750 hours total flight time with 680 in the OH-58D.

Commentary

The accident board determined the accident aircraft engine sustained an in-flight engine failure. There was insufficient information to determine the type of failure and the engine was sent for tear-down analysis.

All information contained in this report is for accident prevention use only.
Do no disseminate outside DOD without prior approval from the USACRC.
Access the full preliminary report on the CRC RMIS under Accident Overview Preliminary Accident Report
https://rmis.army.mil/rmis/asmis.main1 AKO Password and RMIS Permission required.

Preliminary Loss Reports (PLR)

ARMY PRELIMINARY LOSS REPORT 12101

AVIATION MISHAP CLAIMS ONE SOLDIER'S LIFE

An activated Missouri Army National Guard Soldier was killed in an aviation related mishap that occurred on 2 July 2012 at approximately 1100 local in Guatemala. The 34-year-old SSG was videoing/photographing a UH-60 MEDEVAC hoist operation when he was struck in the head by a tree branch that was separated by the rotor wash. He was evacuated to a medical center for treatment where he was pronounced deceased. Local News Article

This is the **10th** Class A **Aviation Mishap** fatality in FY12 compared to **7** for the same time frame in FY11. This PLR does not identify specific root causes of this incident as the investigation is ongoing. Further details will be available at a later date on RMIS (RMIS Login Required).

Preliminary Loss Reports (PLR) are ***For Official Use Only*** and are to provide leaders with awareness of Army loss as we experience it and to point out potential trends that affect our combat readiness.

Our Army depends on you to use these PLRs to help Soldiers understand the impact of decisions made on and off duty.

The **U.S. ARMY COMBAT READINESS/SAFETY CENTER** is interested in your comments; please click here to provide feedback on the PLR. FAQs and additional resources can be found on the USACR/Safety Center website at https://safety.army.mil

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UAS Class A – C Mishap Table

	FY 11 UAS Mishaps					FY 12 UAS Mishaps			
	Class A Mishaps	Class B Mishaps	Class C Mishaps	Total		Class A Mishaps	Class B Mishaps	Class C Mishaps	Total
MQ-1	2		1	3	W/GE	2			2
MQ-5	3		1	4	Hunter	1		1	2
RQ-7	1	14	38	53	Shadow		6	15	21
RQ-11					Raven			1	1
MAV			3	3					
YMQ-18						1			1
SUAV			1	1	SUAV			4	4
Aerostat	6	9		15	Aerostat	1	4		5
Total Year	12	23	44	79	Year to Date	5	10	21	36

As of 17 Jul 12

No Place for Shyness

If there is an emergency in the aircraft or you see someone committing an unsafe act, are you going to remain silent? And if you do speak up, will you make sure you have gotten your message across?

AR 95-1 gives the pilot in command (PC) authority for all aspects of technical operation of the aircraft. But there is no room in the aircraft for servility, and true loyalty and crew coordination means speaking up at the first sign of trouble regardless of whether it's the pilot, copilot, crew chief or a passenger.

Consider the following. A UH-1 crew was on an emergency medical evacuation mission. The copilot was on the controls and flying at 1,400 feet and 110 knots. Suddenly, an unusual vibration was felt. About 2 to 3 seconds later, a second vibration was felt, the rpm warning light came on and the low rpm audio sounded. The copilot lowered collective and scanned the engine instruments. They were normal. As power was applied to level the aircraft, the copilot realized he had a tail rotor problem. At this time, the pilot took control and the copilot told him of the tail rotor problem. For some unknown reason, the copilot's warning did not register. So rather than autorotate, the pilot contacted GCA and advised that he was making a power-on precautionary landing to a large field. Still unaware of a control problem – and with no further word from the copilot – the pilot began a series of "S" turns to lose altitude and align the aircraft for final approach. Reaching 200 feet AGL, the pilot decelerated to about 50 knots. To maintain the approach angle, he applied power and the aircraft yawed to the right. Application of left pedal failed to correct the yaw and the pilot realized he had lost all tail rotor thrust. The aircraft then spun right, hit some trees, and crashed.

When the pilot contacted GCA for the power-on precautionary landing, the copilot should have realized the pilot had not gotten his message concerning the tail rotor problem. Knowing the problem and the proper emergency procedures, the copilot should have spoken up.

Another crew took off on a night VFR round robin training mission. After flying for about 20 miles, the pilot turned back to fly around the local area because of deteriorating weather. While en route to the local area, he entered clouds at 3,000 feet MSL and descended to 2,000 feet to avoid IMC. Reaching the airfield, he made a wide downwind leg to land, encountered light scud, went on instruments and made a 180-degree descending turn back toward VMC. At this time he experienced vertigo, but rather than tell the copilot and ask for assistance, he allowed the aircraft to reach 500 feet before realizing his altitude. The copilot, who had been looking for smudge pots on the airfield, did not know the pilot was in trouble, and suddenly realized how low they were and told the pilot to pull pitch. The pilot pulled pitch but too late to prevent the crash. There is a strong possibility that the copilot could have saved the aircraft if the pilot had just spoken up when he first experienced vertigo.

In another instance, a pilot landed at a drop zone to pick up some parachute club jumpers. After takeoff and climb to altitude, the jumpmaster released a wind drift indicator, determined the wind velocity was too great for parachuting, and aborted the paradrop. As

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Blast From The Past II continued from previous page

the aircraft descended through 1200 feet AGL, a parachutist's reserve chute deployed out the door and the aircraft yawed sharply to the right, pitched down and rolled right. Unaware that the parachute had deployed, the pilot interpreted the emergency as tail rotor failure and autorotated. He decelerated the aircraft at 60-75 feet. However, downwind conditions, load, and the deployed chute limited the effectiveness of collective pitch and the aircraft landed hard, with the main rotor blade severing the tail boom. Neither the crew chief nor the jumpmaster told the pilots what had happened. The jumpmaster was concentrating on the jumpers and trying to fasten his seatbelt for landing. The crew chief had seen the copilot look toward the right rear and assumed he realized the problem. Furthermore, the crew chief was reluctant to say anything over the intercom as he felt it would be distracting to the aviators. Although there is no established procedure for this type emergency, the aviators should have been told what was happening within the aircraft.

True, the decision of the PC is not subject to the approval or disapproval of other crewmembers or passengers. But pretending that all is well or is going to be well may kill you! An in-flight emergency is no time for shyness … on anyone's part. Speak up loud and clear when you see something wrong – and make sure you're understood.

– Article reprinted from Flightfax 14 Oct 81

Manned Aircraft Class A – C Mishap Table

	Month	FY 11 Class A Mishaps	FY 11 Class B Mishaps	FY 11 Class C Mishaps	FY 11 Army Fatalities		FY 12 Class A Mishaps	FY 12 Class B Mishaps	FY 12 Class C Mishaps	FY 12 Army Fatalities
1st Qtr	October	0	1	4			2	2	6	1
	November	0	2	14			1	1	10	0
	December	2	1	5	4		2	2	5	4
2nd Qtr	January	0	1	8			2	0	9	0
	February	1	1	2			2	1	6	0
	March	2	1	7			1	2	10	0
3rd Qtr	April	2	1	12			2	1	4	4
	May	2	1	5	1		1	0	2	0
	June	3	1	4	2		1	0	2	0
4th Qtr	July	1	3	14	2		2	1		1
	August	2	2	10	2					
	September	0	0	5	0					
	Total for Year	15	15	90	11	Year to Date	16	10	54	10

As of 18 Jul 12

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Selected Aircraft Mishap Briefs

Information based on Preliminary reports of aircraft mishaps reported in June 2012.

Utility helicopters

UH-60 

-A series. Aircraft was being positioned for parking during increasing wind/gusting conditions when one MRB made contact with the ground. (Class C)

Observation helicopters

AH-6M 

-Aircraft experienced a rotor over-speed (114.1%) during a ground maintenance run-up. (Class C)

OH-58D 

-During mission, a Chips Engine Low message illuminated followed by complete engine failure. Upon ground contact following auto rotation, the aircraft overturned. Both pilots sustained injuries and the aircraft was destroyed. (Class A)

Unmanned Aircraft Systems

RQ-7B 

-System experienced an engine failure during a training iteration. Recovery chute was deployed and the UA was recovered with damage. (Class C)

-System engine degraded to "IDLE" during launch and the UA descended to ground impact with damage. (Class C)

Aerostat 

-PGSS site personnel reported a "dust devil" wind gust that ripped out the mooring station anchor cables and overturned the platform. (Class B)

"Thank you, Paula!"

We at the U.S. Army Combat Readiness/Safety Center would like to take a few lines of Flightfax to show our appreciation to a dedicated employee. Mrs. Paula Allman has been the senior aviation writer-editor of Knowledge magazine and the managing editor of Flightfax since July 2002. She developed a tremendous relationship with the field and other DA agencies and catapulted Flightfax and Knowledge to a higher standard. Paula also became the reviewing editor for the newly revised Flightfax Online this past year. This month, she retires from Civil Service. For Paula's 32 years of service to the U.S. Army, U.S. Army Combat Readiness/Safety Center, and especially Flightfax, we say, "Thank you, Paula. No one can replace you." ☺

If you have comments, input, or contributions to Flightfax, feel free to contact the Aviation Directorate, U.S. Army Combat Readiness/Safety Center at com (334) 255-3530; DSN 558

U.S. ARMY COMBAT READINESS/SAFETY CENTER

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